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Correspondence.

We invite communications from our readers in matters connected with the trades we represent. Be brief, courteous, and to the point.

Editor of the Wood-Worker:

I am an amateur, and am trying to make a book-case and writing-desk combined, similar to the one designed by Mr. Woodcock, and shown in the Wood-Worker for May, Plate 37. My object in writing you is information; there are some things about Mr. Woodcock's design that I cannot understand; will that gentleman explain? On the drawing at the left hand of the page the case is shown finished, and there is an ornamental cornice or cresting; on the right hand figure, where the inside arrangement is shown, there is no ornamental work to be seen. What is intended by this arrangement? How are the figures shown in the doors and drawers executed? Are they surface figures, raised, or sunk? If sunk, how are they finished, in gold, black, or red? What was the probable cost of the materials used, including hardware, lumber, and machine work?

If Mr. W., or any other gentleman that is posted, will answer these questions, or give any further information or suggestions regarding the style of work or arrangement of desks of this kind, it will be duly appreciated by David A. Hall.

Jersey City, June 14th, 1879.

Editor of the Wood-Worker:

I have received the six "Detail Sheets" I sent for, and I can assure you that I am well pleased with them. I am only sorry that I did not send when you offered the twenty-seven sheets for sale, as I know now that I have missed something valuable by not having the whole set.

The Wood-Worker is getting better and better every issue, indeed it is getting to be a journal of art, and will be the means of inducing a large number of educated people to study, imitate, and originate choice examples of furniture, and also be the means of giving enjoyment to hundreds of young persons who love to handle edge tools. Wishing the Wood-Worker every success, I am

John Randolph.

Detroit, Mich., June 17th, 1879.

[We have chosen the above letter from among a large number on the same subject, in which nearly every writer regrets that he did not secure a full set of the "Detail Drawings" before they were sold out. To these parties we would state that the publisher of the Wood-Worker, Mr. Chas. D. Lakey, has prepared a number of packages of cheap drawings (see advertisement on page 110 of present issue), which contain an infinite number of good and useful designs, together with a large amount of reading matter and useful recipes, etc., etc., and which are sold at an exceedingly low price.—Ed.]'

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Intercommunication.

This department is intended to furnish, for the benefit of all our readers, practical information regarding the art of manipulating wood by hand or machinery; and we trust that every reader of our paper will make the fullest use of it, both in asking and answering. All persons possessing additional or more correct information than that which is given relating to the queries published, are cordially invited to forward it to us for publication. All questions will be numbered, and in replying it will be absolutely necessary, in order to secure due insertion, that the number and title of the question answered should be given; and in sending questions, the title of key-words of the question should be placed at the head of the paper. Correspondents should in all cases send their addresses, not necessarily for publication, but for future reference. We also request that all questions or answers be written on separate slips of paper, and addressed to the Editor. Notes of practical interest will be welcome at all times. When drawings are sent to illustrate answers to questions, or for full pages, they should be on separate slips, and should be drawn in ink on clean, white paper. Short questions, requiring short answers, may be asked and answered through the agency of postal cards.

When answers to questions are wanted by mail, the querist must send a stamp for return postage.

Queries.

43. Wreath.—Will any of your readers, versed in Lucius D. Gould's system as described in his "American Stair-Builders' Guide," inform me whether they have executed a wreath successfully by following the description given on Plate 10 of that work, or whether they think it possible?—W. H. C.

44. Saw.—Will some brother reader inform me how I can take the "buckle" out of an ordinary hand-saw?—A. P. G.

45. Planes.—I should be pleased if some of your subscribers would answer the following questions: (1) Whose make of "Rounds and Hollows" is best, and most in use? (2) Are the Bailey iron bench planes the best; if not, whose are? (3) Is the mitre-box, manufactured by Stanley, reliable and easy to handle? Replies to these "Queries," with any remarks the writer may see fit to make, will be duly appreciated by—A. P. G.

46. Trades.—I should like to know what makes the difference between a carpenter and a joiner as tradesmen, if you or some of your readers would kindly furnish the information through the columns of the Wood-Worker?

The desired information will be of service to a large number of readers as well as—Wood-Butcher.

47. Mahogany.—What native wood resembles mahogany the most, and how is it stained and prepared for polishing or varnishing? Any information on this subject will confer a favor on a—Country Cabinet-Maker.

48. Varnishing.—I wish some of your readers would give a few hints, in your journal,

to a young apprentice, regarding varnishing and polishing. I take the Wood-Worker regularly, and am well pleased with it.—Apprentice.

49. Tools.—If some kind reader will give a few directions in the choice of tools used in the cabinet trade, I for one will be obliged.—Table.

50. Pews. — When did pews come into general use in churches? I have always understood that the early Christians would not tolerate any sitting accommodation in their places of worship; consequently, pews, or other sitting accommodation, must have been an innovation of later date than the fifth century. Any information on this subject will oblige—Architectus.

51.—Ebonizing.—Can any of your readers tell an amateur how to ebonize pine, oak, ash, cherry, etc., satisfactorily? Our furniture factories keep their process a profound secret. I have tried the recipes given in the January number and am not satisfied with them. Also the best way to finish up work after it is blackened?—Ebenezer.

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Answers.

We wish it distinctly understood, that we do not hold ourselves responsible for the accuracy or reliability of answers furnished to this department by our correspondents.

We cordially invite our readers to take an active part in this department, as we are confident that much good can be accomplished by a free interchange of ideas and opinions in regard to subjects connected with the art of wood-working.

Many persons are afraid to write to a public journal because of their lack of literary attainments; to such we would say: Give us your ideas in such language as you can command, and leave the rest to us. It is ideas and opinions we want, such as may be of use to the workingman or amateur. Answers should be sent to this office on or before the fifteenth of each month, to insure insertion in the next issue.

36. Saws.—Mandril can make a wheel that will answer his purpose, by coating it with good glue and rolling it in emery, heated to about 200° Fah. Emery-wheels made this way are not of much service; better get a solid emery-wheel, as it will be much cheaper in the end, and will certainly give better satisfaction.—Gummer.

37. Oak.—Perhaps the following, which is taken from an authority, may give "Backwoodsman" the information he desires: "There are two kinds of this timber common in England, on the Continent, and in America. Oak of good quality is more durable than any other wood which attains the same size: its color is a well-known brown. Oak is a most valuable wood for ship-building, carpentry, frames, and works requiring great strength or exposed to the weather. It is also much used for carved ornaments, panelling of rooms, pulpits, stalls, and standards for churches. It is likewise used in the construction of all kinds of buildings, for strength and stability. English oak is one of the hardest of the species: it is considerably harder than the American, called white and red Canada oak. African oak is well adapted to the construction of merchant vessels.

"The specific gravity of good English oak, 0·83; weight of a cubic foot, 52 lbs.; weight of a bar one foot long and one inch square, 0·36 lb.; will bear upon a square inch without permanent alteration, 3960 lbs., and an extension in length of $\frac{1}{430}$; weight of modulus of elasticity for a base of one inch square, 1,700,000 lbs.: height of modulus of elasticity, 4,730,000 feet; modulus of resilience, 9·2; specific resilience, 11.

"Compared with cast iron as unity, its strength is 0·25; its extensibility, 2·8: and its stiffness, 0·093."—Quercus.

38. Flute.—The following has been recommended for staining ivory black, and may answer "Cleff's" purpose: "Suspend in a strong aqueous solution of neutral silver nitrate exposed to direct sunlight until black; then wash thoroughly with water."—Lily.

40. Books.—"Ambitious" should get all the back numbers of the American Builder, which will cost him probably $40; Riddell's works, $15, and "Rosengarten's Architectural Styles," $3; and he will have all he can get along with, and if he is "sharp," he will find in those books all the *really* useful information he will ever require.—Blunt.

40. Books.—In my youth I was similarly situated as "Ambitious;" I applied for advice to an old contractor, who had done business in one of the chief cities in New England for forty years. "Young man," said he, "if you want to get book knowledge on building and architecture, get 'Peter Nicholson's Encyclopædia of Architecture,' 'Peter Nicholson's Art of Carpentry,' and 'Peter Nicholson's Guide for Mechanics.'" I purchased the works named, and, for those days, I found they answered all my purposes; of course, I have since added to my library books more suitable to this country and this age, but I never forget my first love. I do not say that "Ambitious" should obtain "Nicholson's" works, for they are superseded, but he should obtain works of a like character, such as "Gwilt's Encyclopædia," cost $20; "Newland's Carpenter and Joiner's Assistant," "Robert Scott Burns' Works," and last, but not least, the whole numbers of the American Builder since its first issue.—Contractor.

Note.—We have received several other answers to "Ambitious's" "Query," but are obliged to withhold them for want of space. We have chosen for publication the answers we considered the best, but in our opinion they are both faulty—very much so—and we take this opportunity to name the books we think would be of most use to a young man placed in the same position as "Ambitious" is. First, an encyclopædia is indispensable, and we name

"Gwilt's," as being the best, price	$20 00
"Warren's Drafting Operations."	1 25
" Freehand Drawing."	1 00
"Riddell's Lessons in Hand-railing."	5 00
" New Elements of Hand-railing."	10 00
" Artisan."	5 00
"Lakey's Village and Country Houses."	5 00
"Rosengarten's Architectural Styles."	3 00
"Progressive American Architecture."	6 00
"Vogdes' Prise Book."	1 50
"Scribner's Mechanic's Companion."	1 50
"Ames' Alphabets."	1 50
Total	$60 75

Of course, this does not include the AMERICAN BUILDER, as that journal is supposed to be taken regularly by every wide-awake carpenter and builder in the land. The books enumerated above cover the ground "Ambitious" seeks to travel very fairly, though forty dollars more, as judiciously expended, would procure him a library sufficient for all his requirements, provided he subscribes for all the building journals issued in the country. —EDITOR.

42. NAILS.—"Anxious" can find the desired information in "Tredgold's Carpentry," by Hurst.

The following experiments were made by Mr. Bevan. He says, the progressive depths of sixpenny nail into dry Christiana deal by simple pressure across the grain was as follows:

¼ of an inch	24 lbs.
½ of an inch	76 "
1 inch	235 "
1½ inch	400 "
2 inches	610 "

To extract a sixpenny nail from a depth of one inch (1″) out of dry oak required a force of 570 lbs.; dry elm, 327 lbs.; dry beech, 667 lbs., and green sycamore, 312 lbs. Owing to the taper in nails the resistance to entrance becomes of necessity greater than that of extraction, the ratio was found to be about six to five. The same nail driven edgeways into dry elm one inch required a force of 257 lbs. to extract it, and driven endways into dry Christiana deal one inch required a force of 87 lbs. to extract it. The relative adhesion therefore in the same wood when driven across, or with the grain of the wood, is about four to three for dry elm and about two to one for deal.

It was found by Mr. Bevan that the force required to cause sliding or complete separation in the plane of the joint of the two pieces of Christiana deal, each seven eighths of an inch thick, when nailed together with two sixpenny nails, was 712 lbs.; the same for dry oak one inch thick, 1009 lbs.; the same for dry sound ash, 1420 lbs.

The same author has given us valuable information on the adhesion of screws. With a screw two inches in length, $\frac{22}{100}$ of an inch in diameter at the exterior of the threads $\frac{15}{100}$ of an inch in diameter at the bottom, the depth of the thread being $\frac{35}{1000}$ of an inch, and the number of threads = 12. The screws were passed through pieces of wood exactly one half inch in thickness, and were drawn out by the weights specified in the following table:

Dry Beech	790 lbs.	Dry Mahogany	770 lbs,
Dry Sound Ash	790 "	Dry Elm	655 "
Dry Oak	760 "	Dry Sycamore	830 "

The weights were supported about two minutes before the screws were extracted, the force required to draw similar screws out of softer woods is estimated at about one half the above.

A common screw of one-fifth of an inch in diameter was found to have an adhesion of about three times that of a sixpenny nail.—ENQUIRER.

We solicit early answers from our subscribers to the following "Queries," made in previous issues, and which, so far, have not been answered:

No. 15.—CORNER CUPBOARD.
" 15.—EMBLEMS.
" 16.—SECRETARY.
" 17.—CROCKETT'S PRESERVATIVE.
" 20.—RAILING.
" 30.—STAIR CYLINDER.
" 33.—HOWE TRUSSES.
" 34.—COTTAGE.
" 35.—PLOUGH.
" 39.—CUPBOARD.
" 41.—COMMUNION TABLE.

Clamping Picture-Frames.

AN excellent arrangement for fastening the corners of picture-frames can be made in a few minutes which will be all that can be desired and answers admirably in the case of frames that will not bear marring on the edges. Take a piece of wood 9 or 10 inches long, and 2½ square, and rebate one angle 1¼ inches deep and wide, then round off the opposite angle, and cut the piece into four pieces of equal length. Having accurately mitred the frame, lay it upon the bench and put one of the pieces of wood at each corner, the rebate, of course, fitting upon the angle, and wind a piece of quarter-inch cord twice around the frame over the corner pieces, and tie it at one corner.

Now take four pieces of smooth wood 6 inches long and twice as thick as a carpenter's pencil, insert them between the cords, one on each side of the frame, and by twisting the cord with them it can be made as tight as desired; and having seen that the mitres are good, and the frame does not wind, lay it upon the bench and pull out the bits of wood without disturbing the cord or corner pieces, lift out the frame, put a little glue upon the mitres, and replace as quickly as possible in the same position as it was be-